

CLAIMS

1. Communication system comprising: first and second pieces of equipment having respective housings; a data
5 transmission line for transmitting data between said pieces of equipment in a reflective signalling format; and conversion means connectable to said data transmission line externally of said respective housings for converting data between a reflective signalling format and another
10 format suitable for processing by one of said pieces of equipment.

2. Communication system according to claim 1, wherein said conversion means includes a signal connector for connection to one of said pieces of equipment.

15 3. Communication system according to claim 1 and including a connector assembly including said conversion means and a signal connector for connection to one of said pieces of electrical equipment.

4. Communication system according to claim 3, wherein
20 said connector assembly includes a housing, the converter being located inside that housing.

5. Communication system according to any one of claims 2 to 4, wherein said signal connector is releasable.

6. Communication system according to any preceding
25 claim, wherein said conversion means also converts power between a reflective signalling format and another format suitable for consumption by one of said pieces of equipment.

7. Converter for converting data between a reflective signalling format and another format, said data being transferred between first and second pieces of equipment; wherein the converter is adapted to be located externally
5 of said first and second pieces of equipment.

8. Converter according to claim 7 and including a signal connector for connection to one of said pieces of electrical equipment.

9. Converter according to claim 8, wherein said signal
10 converter and said signal connector are located in a common housing.

10. Converter according to claim 8 or 9, wherein said signal connector is releasable.

11. Converter according to any one of claims 7 to 10 and
15 also adapted to convert power between a reflective signalling format and another format suitable for consumption by one of said pieces of equipment.

12. Method of signalling between first and second equipments linked by a transmission line and of sensing a
20 security violation of said transmission line, the method comprising the steps of:

- (a) transmitting a signal from said first equipment to said second equipment;
- (b) reflecting said signal back to said first equipment in
25 a manner corresponding to a first bit sequence;
- (c) receiving the signal thus reflected at said first equipment; and
- (d) comparing said signal thus reflected with said

transmitted signal to determine whether there has been a security violation of said transmission line and to extract said first bit sequence.

13. Method of signalling according to claim 12 and
5 comprising the step of comparing the signal thus reflected with the transmitted signal to determine a round trip time.

14. Method of signalling according to claim 13 and
comprising the step of monitoring successive round trip
10 times to determine any variation thereof.

15. Method of signalling according to claim 14 and
further comprising the step of periodically lowering the threshold at which reflected signals are considered received.

15 16. Method of signalling according to any one of claims 12 to 15 and comprising the step of generating an alarm signal on determination of a security violation.

17. Method of signalling according to any one of claims 12 to 15 and comprising the step of blocking signalling
20 between first and second equipments on determination of a security violation.

18. Method of signalling according to any one of claims 12 to 15 and comprising the step of re-routing signalling via a different transmission line on determination of a
25 security violation.

19. Signalling system configured to operate in accordance with claim 16 and having means responsive to said alarm signal for visually indicating a security violation of the

transmission line.

20. Signalling system configured to operate in accordance with claim 17 and having means for blocking signalling between said first and second equipments on determination
5 of a security violation.

21. Signalling system configured to operate in accordance with claim 18 and having means for re-routing signalling via a different transmission line on determination of a security violation.

10